

NOT = Complemento A1
NEG = " A2

Escritura en Puertas

IN $\frac{Dest}{cpu}$, $\frac{fuente}{I/O}$

OUT $\frac{Dest}{I/O}$, $\frac{fuente}{cpu}$

Delays

(A) $\Delta t = T_{JMP} + T_{NOP} \dots$

(B) EN CPU $\Delta t = T_{NOP} = 3T$

$\Delta t = 1T + 1T + 1T = 3T$

(C) Frecuencia = 100 MHz $T = \frac{1}{f}$

$T = \frac{1}{1 \times 10^8} = 1 \times 10^{-8} \text{ seg}$

$\Delta t = 3T = 3(1 \text{ ns}) = 3 \text{ ns seg}$

SHL $\frac{CF}{\square} \leftarrow \square \leftarrow \square$ (Lógico)

SAL $\frac{CF}{\square} \leftarrow \square \leftarrow \square$ (Aritmético)

SHR $\square \rightarrow \square \rightarrow \frac{CF}{\square}$

SAR $\square \rightarrow \square \rightarrow \frac{CF}{\square}$

Memónico, TARGET, No. shifts

ROL $\frac{CF}{\square} \leftarrow \square \leftarrow \square$

RCL $\frac{CF}{\square} \leftarrow \square \leftarrow \square$

RCR $\square \rightarrow \square \rightarrow \frac{CF}{\square}$

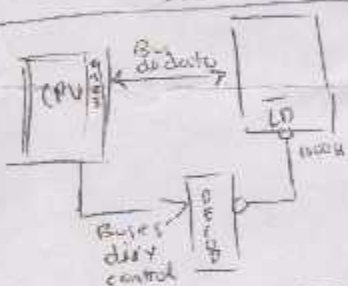
ROR $\square \rightarrow \square \rightarrow \frac{CF}{\square}$

1 Lazo de Recursión

Delay \rightarrow { MOV SI, "nn"
DEC SI
JNZ \rightarrow (1)

$\Delta t = T_{JMP} + (nn) T_{DEC SI}$
 $+ (nn-1) T_{JNZ} + T_{JNZ}$

$\Delta t = 2 \text{ seg } 1 \times 10^{-8} (2nn+1)$



2 Lazos:

$\Delta t = nn (3T + 2TRR) - 2T(RR)$

nn y RR = # tamaño word (0 \rightarrow 65535)

Delay Software (2 o más Lazos anidados)

Delay \rightarrow { MOV SI, nn
(1) \rightarrow DEC SI
SZ \rightarrow (2)
MOV DI, RR
(2) \rightarrow DEC SI
JNZ \rightarrow (2)
JMP \rightarrow (3)
(1) \rightarrow (3)

$R = 2Tnn(RR) = 2 \times 10^{-8} (nn \times RR) \text{ seg}$

(1) División de Memoria

(2) Diagrama de flujo

$20 \times 10^3 \text{ seg} = 2 \times 10^8 (nn) (RR)$

$10 \times 10^5 = (nn) (RR)$

$nn = 10000$

$RR = 10000$

Lineal

Delay { NOP
NOP
NOP

$PMF = DS \times 40 + SI_{min}$

Dato \rightarrow DS $00010 \rightarrow$ CS

Stack \rightarrow SS
SP

IP